

Work Order ID 61428

Wednesday, August 25, 2010 9:11:22 AM

Page 1

Item ID: D206-667-103TRN

Accept

Setup Start

Revision ID:

Stop

Item Name: Crosstube Turning DetailL

Start Date: 8/25/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 9/1/2010 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: mf Date: 10-8-25 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D206-667-143	Rev C								

100

0.00



Mori Seiki

MORI SEIKI CNC LATHE LARGE

Memo

0.00

Mori Seiki CNC Lathe Large

1-Fill tube with sand & install plugs DT8534 on both ends as per Folio
FA087□2-Turn first side as per Folio FA087□3-File down transition lines
smooth.

*SP 10/08/26*1 0

110

0.00



QC

QC1- Inspect dimensions to dimension sheet

Memo

0.00

Quality Control

*SP 10/08/26*1 0

120

0.00



Mori Seiki

MORI SEIKI CNC LATHE LARGE

Memo

0.00

Mori Seiki CNC Lathe Large

1-Turn second side as per Folio FA087□2-File down transition lines smooth.
□
3-Remove sand and plugs

*SP 10/08/26*1 0

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130  QC Quality Control	QC1- Inspect dimensions to dimension sheet Memo	0.00 0.00	<i>8/10/08/26</i>			<i>1</i>	<i>0</i>		
140  QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00	<i>S.10/08/06</i>			<i>0</i>			
150  HandFXtube Hand Finishing Crosstubes	Crosstubes Chemical Conversion Memo	0.00 0.00	<i>DP</i>			<i>10-8-26</i>			

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 	QC3- Inspect Part Finish	0.00							
QC Quality Control	Memo	0.00				(IX)	Q	NB	10-09-01
170 	Packaging	0.00							
Packaging Packaging	Memo Identify and stock in kanban rack <input type="checkbox"/> Location: <u>x-tube cel</u>	0.00				(IX)	Q	NB	10-09-01
180 	QC21- Final Inspection - Work Order Release	0.00							
QC Quality Control	Memo	0.00							10/09/01

MF
10-8-31

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Picklist Print

Wednesday, August 25, 2010 9:11:20 AM

Page 1

Work Order ID: 61428



Parent Item: D206-667-103TRN



Parent Item Name: Crosstube Turning DetailL


Start Date: 8/25/2010

Required Date: 9/1/2010

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A 08-03-06 new issue DD verified by:ec
IPP Rev B 08.04.02 removed polish EC verified by DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6002-115 		Manufactured	No			110	Each	56.0000	1	1			

Crosstube Material

Location

Loc Qty

Loc Code

LG

56

34684

1

→ 34776

55

1 ml 8/25

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DART AEROSPACE LTD	Work Order: 61428
Description: Crosstube Assembly (206L High Fwd)	Part Number: D206-667-143
Inspection Dwg: D206-667-143 Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article
 ☐ Prototype

	Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	2.240	+0.005/-0.000	2.243	✓		Mic	8806
	1.982	+0.005/-0.000	1.985	✓		vern	AM-04
	2.019	+0.005/-0.000	2.022	✓			"
	2.058	+0.005/-0.000	2.061	✓			"
	2.097	+0.005/-0.000	2.100	✓			"
	2.136	+0.005/-0.000	2.139	✓			"
	2.176	+0.005/-0.000	2.179	✓			"
	2.201	+0.005/-0.000	2.204	✓			"
	0.125	+/-0.010	.125	✓			"
	0.400 x 30°	+/-0.010	.400	✓			"
	R0.063	+/-0.010	.063	✓			"
	R0.500	+/-0.010	.500	✓			"
	4.438	+/-0.030	4.440	✓			"
SIDE B	104.98	+/-0.020	104.98	✓		Tape	8813
	2.240	+0.005/-0.000	2.244	✓		Mic	8806
	1.982	+0.005/-0.000	1.982	✓		vern	AM-04
	2.019	+0.005/-0.000	2.023	✓		"	
	2.058	+0.005/-0.000	2.062	✓		"	
	2.097	+0.005/-0.000	2.100	✓		"	
	2.136	+0.005/-0.000	2.138	✓		"	
	2.176	+0.005/-0.000	2.180	✓		"	
	2.201	+0.005/-0.000	2.204	✓		"	
	0.125	+/-0.010	.125	✓		"	
	0.400 x 30°	+/-0.010	.400	✓		"	
	R0.063	+/-0.010	0.063	✓		"	
	R0.500	+/-0.010	0.500	✓		"	
	4.438	+/-0.030	4.439	✓		"	

Measured by: 88	Audited by: S	Prototype Approval:	N/A
Date: 10/08/26	Date: 10/06/26	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.05.06	New Issue (P/O D206-667-103)	KJ/RF	
B	06.03.09	Dwg Rev updated	KJ/JLM	

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Item	Qty -143	Part Number	Description
1	X	D206-667-143	CROSSTUBE ASSEMBLY (206L HIGH FWD)
2	1	D6002-115	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2891-1	SUPPORT
6	4	D3595-063-395	RUBBER CUSHION
7	4	MS21920-20	CLAMP (OR MS21920-21)
8	14	MS20601AD4W8	RIVET (OR NAS9302B-4-8)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6002-115
FINISHED LENGTH = 104.98±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-143" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 15.5 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 10 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-20 CLAMPS (OR -21) WITH D3595-063-395 RUBBER CUSHIONS TO SECURE THE D2891-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

RELEASED

C	REVISE GENERAL NOTES/PART LIST (ZN D7-1); REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS. D3595-063-395 WAS D2856-400-694 (ZN D6-2 & A5-2); REMOVED REF. & ADD TOLERANCE (ZN D3-3, C4-3, C5-3); RELOCATED FLAG #6 (ZN A8-3) PER NCR 210; MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4.	RF	08.11.06
B	ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHT/AA SKUOTUBES	PH	05.07.26
A	NEW ISSUE	CP	00.11.17
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF	DRAWING NO.	REV. C
CHECKED	RF	D206-667-143	SHEET 1 OF 4
MFG. APPR.	RF	TITLE	SCALE
APPROVED	RF	CROSSTUBE ASS'Y (206L HIGH FWD)	NTS
DE APPR.	RF	COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	
DATE	08.11.06		

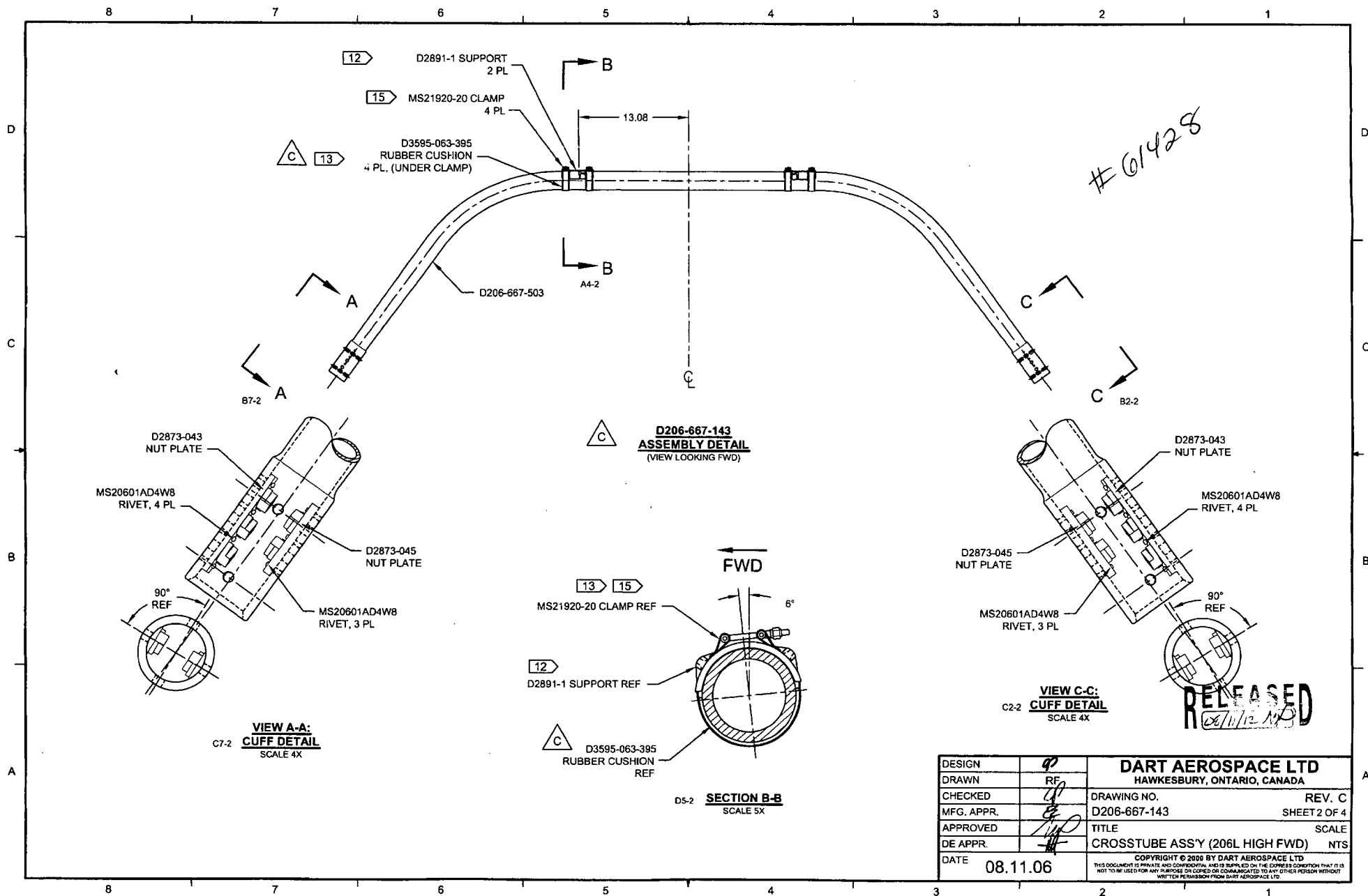
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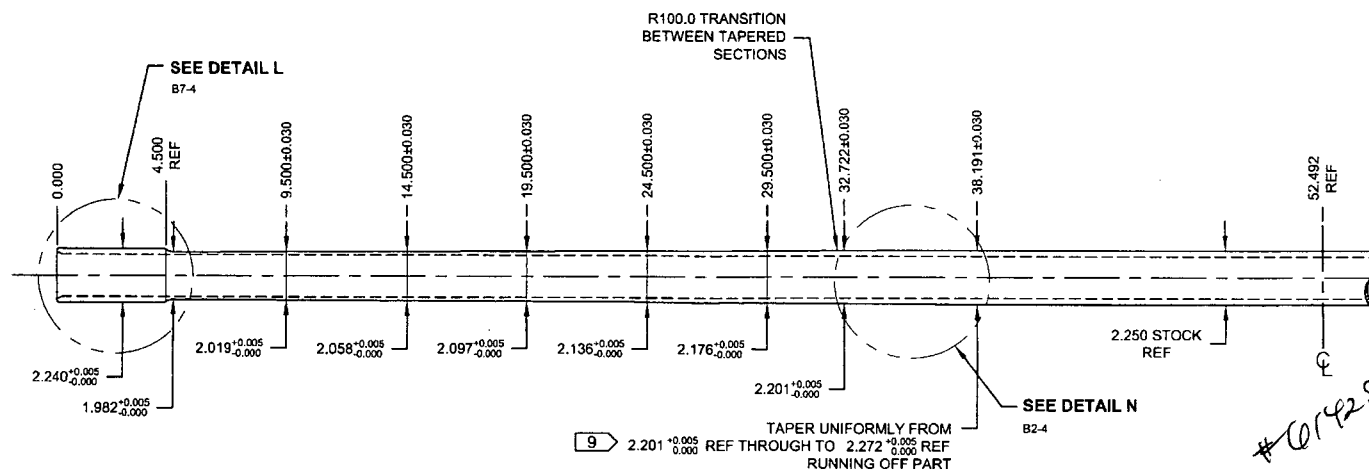
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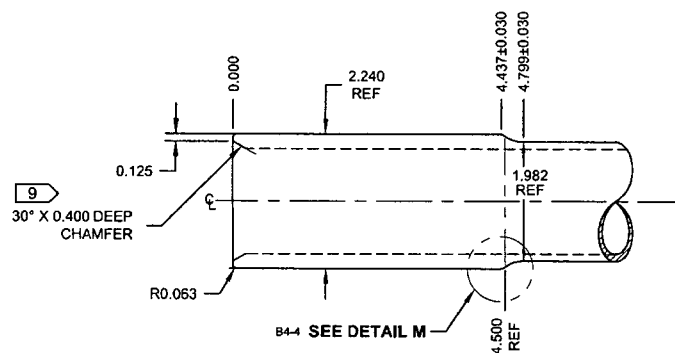
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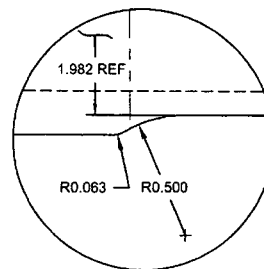
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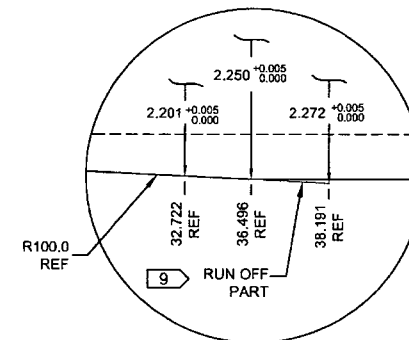
TURNING DETAIL



**DETAIL L:
CROSSTUBE CUFF**
D7-4 NOT TO SCALE



**DETAIL M:
CUFF TRANSITION**
A6-4 NOT TO SCALE



**DETAIL N:
TAPER RUN-OFF**
C4-4 NOT TO SCALE

RELEASED

DESIGN	9	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	9	DRAWING NO.	REV. C
MFG. APPR.	9	D206-667-143	SHEET 4 OF 4
APPROVED	9	TITLE	SCALE
DE APPR.	9	CROSSTUBE ASS'Y (206L HIGH FWD)	NTS
DATE	08.11.06	<small>COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

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